

## GSM900\*3G 2100mhz Dual band Signal Booster Signal Repeater for home/office use ST92A Repeater Max coverage 100sqm

### What is the booster?





Cell phone signal booster (also named repeater, amplifier) is a product designed to solve the mobile phone blind signal. As the mobile phone signal is transmitted by electromagnetic waves to establish a communications link, however there are a lot barriers make it is unavailable to get sound signal. When people enter some tall buildings, some places basement malls, restaurants and parking lot, some places of entertainment such as karaoke sauna and massage, some public place such as subway, tunnel and etc. where cell phone signals can not reach, now the cell phone signal booster can solve these problems! The entire range of mobile phone signals can be well used; we all will get great convenience and benefit from sound signal. Our boosters are the perfect solutions for a wireless improvement in the mobile reception!



### ST92A mobile phone signal booster specification

Frequency range	GSM 890-915 935~960MHz DCS1920-1980 2110-2170mhz	Gain	Up link: Gp≥63dB Downlink: Gp≥68dB
output	Up link :10dBm Downlink: 14dBm	Function	a) Power supply LED denote b) Export power LED denote
Port VSWR	≤1.8DB	I/O impedance	50Ω/N connector
Noise figure	≤6dB	Transmission delay	≤0.5μs
Ambient temperature	-15°C~55°C	Power supply	AC/220V±10% 45~55Hz
Size/weight	130*95*28MM/450g	Coverage area	300sqm

#### Phone Improved Service: Voice , Text, Data and Mobile Internet:

-  Making Calls
-  Sending Texts
-  Browse Internet
-  Sending Picture Messages
-  Using Emails on Your Phone
-  Stream Music
-  Sending Videos
-  Fast Networking for Smartphones, Dongles and Tablets

# ST-92A Dual band Mobile Phone Signal Repeater complete set introduction

1. If you need a 900 3G Dual band signal booster for your personal home use ,  
We recommend you choose the easy installation Option.



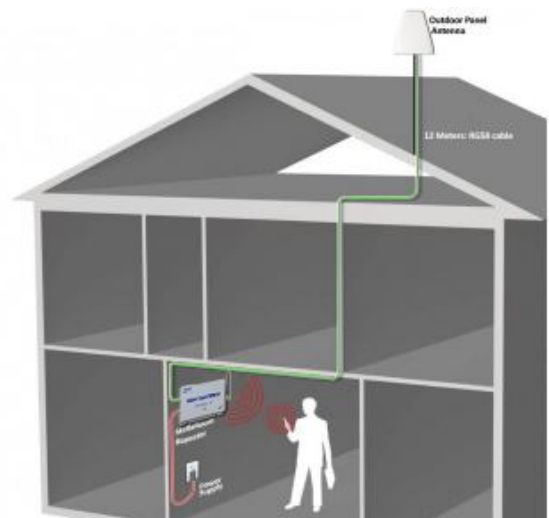
Complete set including :

- 1 pc Repeater ST-92A
- 1 pc outdoor LAP antenna
- 1 pc indoor Whip antenna
- 8meters cable for outdoor antenna connector
- 1 pc power supply

## The Above complete set installation Steps :

- Step 1 : Set the outdoor antenna at the place where have a good signal ;  
Step 2: Use the 10meters cable to connect the outdoor antenna and the repeater (outdoor side ) ;  
Step 3: connect the indoor whip antenna on the repeater directly ;  
Step 4: Plug the power supply , the repeater will work fine ,and your mobile signal be 5bars immediately !

(Please pay attention , Never plug the power supply before you confirmed antenna and cable be connected well , otherwise the repeater will may be broken. )



**2. If you need the 2G 3G Dual band Repeater for office/home coverage 100sqm ,We recommend you choose the option as follows :**



Complete set including :  
1 pc Repeater ST-92A  
1 pc outdoor Yagi or LAP antenna  
1 pc indoor Omni antenna  
8meters cable for outdoor connection  
3meters cable for indoor connection  
1 pc power supply

### **The Above complete set installation Steps :**

1. Install the outdoor antenna option to the good signal place or Basestation direction;
2. Use the 8meters cable to connect the outdoor antenna and repeater "outdoor side "
3. Use the 3meters cable to connect the indoor antenna and the repeater "indoor side "
4. Plug the power supply, the repeater will work fine ,and your mobile signal be 5bars immediately !

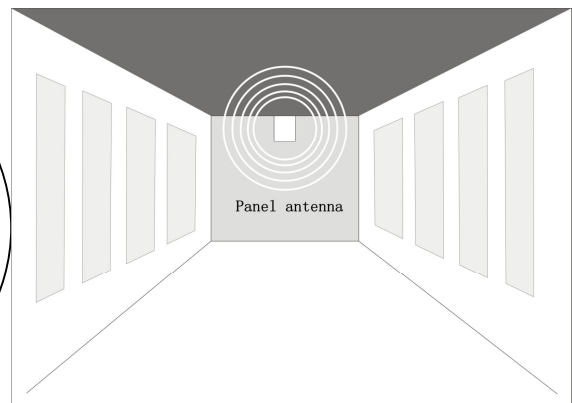
(Please pay attention , Never plug the power supply before you confirmed antenna and cable be connected well , otherwise the repeater will may be broken. )



**3. If you need the 2G 3G Dual band Repeater for a long Corridor place coverage 100sqm ,We recommend you choose the option as follows :**



Complete set including :  
1 pc Repeater ST-3GA  
1 pc outdoor Yagi or LAP antenna  
1 pc indoor **Panel antenna**  
8meters cable for outdoor connection  
3meters cable for indoor connection  
1 pc power supply



### **The Above complete set installation Steps :**

1. Install the outdoor antenna option to the good signal place or Basestation direction;
2. Use the 8meters cable to connect the outdoor antenna and repeater "outdoor side "
3. Use the 8meters cable to connect the outdoor antenna and repeater "outdoor side "
4. Use the 3meters cable to connect the indoor antenna and the repeater "indoor side "
5. Plug the power supply, the repeater will work fine ,and your mobile signal be 5bars immediately !

**(Please pay attention , Never plug the power supply before you confirmed antenna and cable be connected well , otherwise the repeater will may be broken. )**

## The ST-92A Dual band repeater With 3 LED indicates :

### POWR LED

### UL LED

LED	Status	Definition
Power	Red	Normal
	Off	DC power problem
DL(Downlink)	White	No signal received
		Solution: Adjust the outdoor installation to get sound signal(see page 14)
	Green	Signal received ok but not perfect
		Solution: Adjust the outdoor installation to get sound signal(see page 14)
	Red	Full signal received

### Features of the GSM 3G Dual band Signal Repeater ST-92A

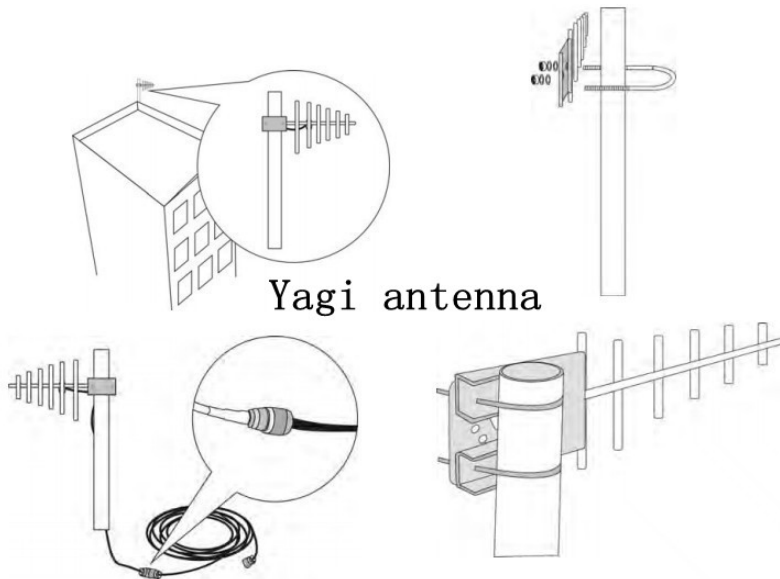
- Elegant appearance, mini size, light weight
- Easy installation.
- No interference to the base station, no harm to people health.
- CE & RoHS proved.
- Low consumption.
- ALC technology.
- Stable performance.
- Environment Friendly, Energy-Efficient.
- Comply to the ETS300 694-4 standard
- Comply to the GB6993-86 standard
- Wide band repeater to support signals of all operators.
- High-integration (One board to contain low-noise amplifier, frequency selection module, power amplifier module, both uplink and downlink one for all).
- Manual gain control, Automatic gain control, Artificial Intelligence function can protect the repeater together the BTS perfectly.
- Auto shut off function as final step to avoid severe interference with mobile net network and energy saving.

### Installation of outdoor antenna

The signal strength from the outdoor antenna directly affects the efficiency of the indoor coverage, so it is very important to choose the outdoor antenna location to get the best signals.

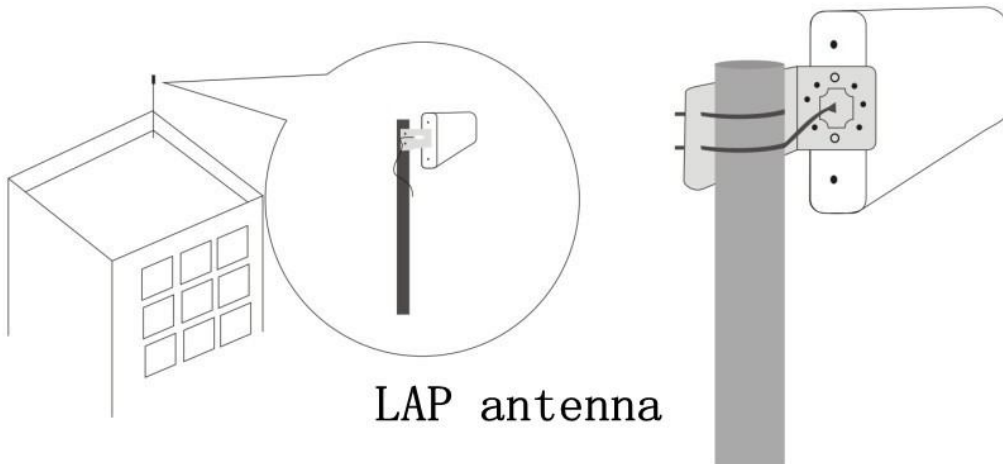
- Select the top of building, the window or the balcony to install the outdoor antenna where there is with sound signal.
- Testing the signal strength received from outdoor antenna by mobile phone from different direction, and it shall display full bar signals where the outdoor antenna installed.
- Fix the outdoor antenna after selecting the best position, and adjust slightly its height or angles in order to get the best signals.
- The phone calls or data transmission shall be smooth and stable by 3 times testing where the outdoor antenna installed.

### Installation of Yagi antenna as outdoor antenna



Yagi antenna

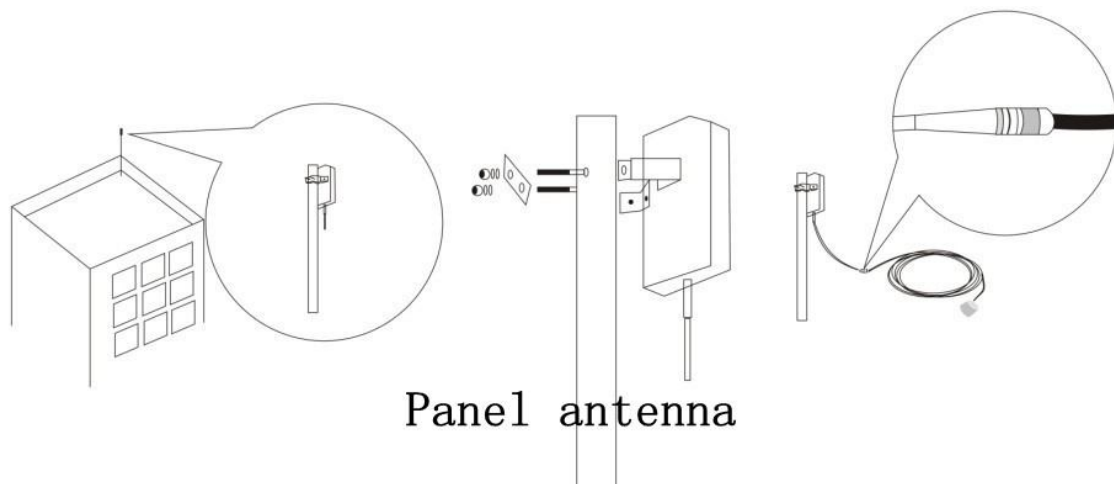
### Installation of LAP antenna as outdoor antenna



LAP antenna

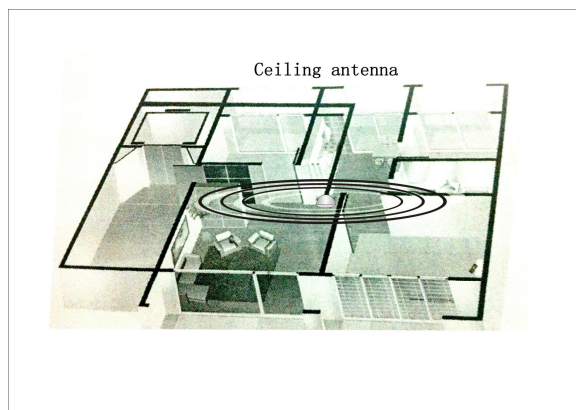


## Installation of Panel antenna as outdoor antenna

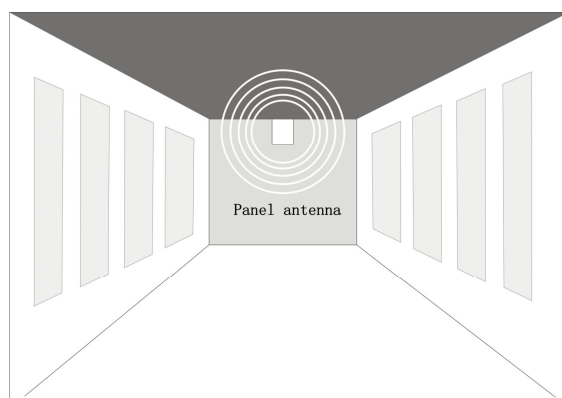


## 5.4 Installation of indoor antenna

**Omni antenna (Indoor ceiling antenna or whip antenna), suitable for installing in the center and radiate all directions.**



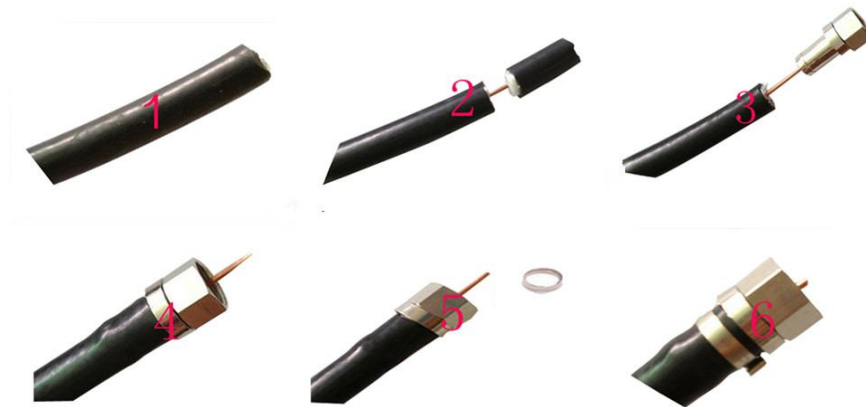
**Directional antenna (Panel antenna) suitable for the coverage shape is long and narrow, like corridors, tunnels or elevators, etc. (The directional antenna is good for isolation from outdoor antenna)**



*Note: Attention on the install of outdoor antenna and indoor antenna*

*Booster is a two-way signal amplifier, so proper isolation between outdoor antenna and indoor antenna is necessary in order to avoid self-oscillation. About the definition for self-oscillation, take MIC and Loudspeaker for example, if it is too close for each other, it could make big noise. And the minimum distance between outdoor antenna and indoor antenna shall be 5 meters. Again if the two antennas install in the same level, then the direction of outdoor antenna and indoor antennas shall be opposite (in this case, the directional antenna will be a good choice). If the isolation can't be achieved by the limited distance, the roof of the building or any other barriers can be put between two antennas to increase isolation.*

#### 5.6. How to install the connectors to the cable?



#### 5.7. Installation of booster

**The booster can only be installed indoor, and can not turn on the power of booster until all accessories is settled correctly!**

##### **Booster's ports description**

- 1) Outdoor port: Connect with the outdoor antenna by cable and connector
- 2) Indoor port: Connect with the indoor antenna directly or by cable and connector
- 3) Power: connect with power supply

## **ST92A Signal Repeater with AGC**

### **What is AGC function? And what is the advantage?**

AGC means Auto Gain Control; it means the booster can control the gain by itself according to the surroundings.

- When there is a sudden strong signal input, the booster can adjust the gain accordingly to protect the booster module together BTS station, make the strong signal will not affect the BTS after adjustment.
- When the signal outside is too weak, the booster can adjust the gain to full stage to boost the signal received at most for end use.
- The AGC repeater is with LED on it, it can directly show the running state of the booster.